

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A vehicle power unit capable of electrically controlling a brake of a vehicle having a battery as a power source of the vehicle, the vehicle power unit comprising:

~~a battery as a power source of the vehicle;~~

an auxiliary power source having a capacitor unit and used in abnormal conditions of the battery, the capacitor unit comprising a plurality of capacitor cells;

a charge controller for charging the auxiliary power source from the battery;

a voltage monitor for monitoring a voltage of the capacitor unit during charging; and

a electronic controller for braking the vehicle by supplying power from the battery to the brake according to at least one of information from a brake pedal and information on a running state of the vehicle;

wherein:

the voltage monitor monitors if monitors whether the voltage of the entire capacitor unit is not exceeding exceeds a predetermined voltage, when the voltage monitor detects that the voltage exceeding the predetermined voltage is applied to the capacitor unit during charging, the voltage monitor determines an abnormality, and the charge controller stops charging.

a voltage V0, which is the predetermined voltage that the voltage monitor determines as the abnormality, is calculated by the following Equation:

$$V0 = V1 + \left[\frac{1 - (Fdeg + Adeg)}{1 + (Fdeg + Adeg)} \right] \times V1 \times (T - 1)$$

wherein V1 is a withstand voltage of each capacitor cell, Fdeg is an initial dispersion in the capacitor cells, Adeg is an aged deterioration of the capacitor cells, and T is the number of the capacitor cells connected in series.

2-4. (Cancelled).

5. (Currently Amended) ~~The vehicle~~ A vehicle power unit of claim 1 ~~capable of electrically controlling a brake of a vehicle which includes a battery as a power source of the vehicle, the vehicle power unit comprising:~~

an auxiliary power source having a capacitor unit and used in abnormal conditions of the battery, the capacitor unit comprising a plurality of capacitor cells;

a charge controller for charging the auxiliary power source from the battery;

a voltage monitor for monitoring a voltage of the capacitor unit during charging; and

a electronic controller for braking the vehicle by supplying power from the battery to the brake according to at least one of information from a brake pedal and information on a running state of the vehicle, wherein the capacitor cell is

previously confirmed that an initial dispersion of voltage between cells is within a predetermined value.

6. (Currently Amended) The vehicle power unit of claim 5, wherein the plurality of capacitor cells connected in series are charged at a further predetermined voltage, and the initial dispersion ~~in~~of respective capacitor cells is selected from the charging voltage of the respective capacitor cells.

7. (Currently Amended) ~~The vehicle~~A vehicle power unit ~~of claim 6~~capable of electrically controlling a brake of a vehicle having a battery as a power source of the vehicle, the vehicle power unit comprising:

an auxiliary power source having a capacitor unit and used in abnormal conditions of the battery, the capacitor unit comprising a plurality of capacitor cells;

a charge controller for charging the auxiliary power source from the battery;

a voltage monitor for monitoring a voltage of the capacitor unit during charging; and

a electronic controller for braking the vehicle by supplying power from the battery to the brake according to at least one of information from a brake pedal and information on a running state of the vehicle, wherein the capacitor cell is previously confirmed that an initial dispersion of voltage between cells is within a predetermined value, wherein:

the plurality of capacitor cells connected in series are charged at a further predetermined voltage, and the initial dispersion of respective capacitor cells is selected from the charging voltage of the respective capacitor cells,

a voltage V0 to be applied to the plurality of capacitor cells connected in series to select the initial dispersion in the capacitor cells is calculated by the following Equation:

$$V0 = V1 + V1 \times \frac{1 - Fdeg}{1 + Fdeg} \times (T - 1)$$

~~wherein~~where V1 is a withstand voltage of each capacitor cell, Fdeg is an initial dispersion in the capacitor cells, and T is the number of the capacitor cells connected in series.

8. (Currently Amended) A vehicle power unit, wherein a plurality of capacitor cells connected in series are charged at the applied voltage of claim 7, and a voltage of each capacitor cell is monitored to structure a capacitor unit by a combination in which no capacitor cell has a voltage V2 higher than the withstand voltage V1 and lower than the following Equation:

$$\underline{V2} = V1 \times \frac{1 - Fdeg}{1 + Fdeg}$$